Reducing Indoor Air Pollution

Activity:	Reduction of Exposure to Indoor Air Pollution through Household Energy and Behavioral Improvements
Program Area:	Urban Energy, Rural Energy
Implementer:	Winrock International
Geographic Focus:	Global
Duration:	September 2002 – September 2006

Pot on rebar over open fire in a home in the Phillipines.

Program Background

Over two billion people worldwide rely on traditional fuels—wood, animal dung, and charcoal—to cook their meals and heat their homes. Every year nearly two million of them, mainly women and children, die from illnesses linked to the air pollution caused by these cooking practices.

Cooking over open fires or with inefficient stoves in poorly ventilated rooms creates fumes that can lead to carbon monoxide poisoning or chronic obstructive lung disease. Worldwide, acute respiratory infections, such as pneumonia, are the leading cause of death for children under five. According to the World Health Organization, indoor air pollution is the fourth largest health risk in the world's poorest countries.

To help combat these problems, USAID is working to create a unique, integrated approach to the problems associated with household energy – one that addresses the energy and health nexus.

Development Objective

The program's overall objective is to improve indoor air quality and thereby reduce associated health impacts for those most at risk—women and children. Additional goals include improving socioeconomic status and reducing environmental degradation through greater fuel and stove efficiencies.

In much of the developing world, women and children bear the burden of gathering fuelwood and other biomass fuel sources. Fuel collection can take hours, keeping children out of school and reducing women's ability to engage in income-earning activities. The constant demand for fuel can put natural resources under

strain, contributing to deforestation and loss of biodiversity.

Approach

By improving or switching fuels, utilizing more efficient stove and ventilation technologies, and changing cooking practices, poor women can ameliorate or eliminate many of these problems. Greater efficiency can reduce the amount of fuel families need for cooking, as well as the amount of time they spend collecting fuel and/or cooking. The results are less exposure to air pollution, more time for other tasks, and less pressure on the environment.

This program will develop and document effective household energy approaches to serve as models for larger scale efforts. USAID's comprehensive approach involves a range of activities, including: introducing improved technologies and fuels; improving access to such goods by strengthening commercial and financial channels; adapting behavior change techniques and promoting healthier cooking and heating practices; improving the enabling environment to foster effective change; streamlining instruments for monitoring and evaluation; and promoting information exchange.

Program Partners

USAID's principal implementing partner is Winrock International. Winrock and USAID also seek to partner with a wide range of project and program implementers in the health and energy sectors, as well as in housing, environment and education, as appropriate. Partners will include NGOs, policy makers and government program implementers, private enterprises, research and educational institutions.

USAID is also a founding partner and funder of the Partnership for Clean Indoor Air (PCIA), a component of the Presidential Clean Energy Initiative, and works with the Partnership to develop a more holistic approach to household energy and health.

Program Activities

Initial projects currently are underway in the Philippines and Kenya and efforts are being made to expand the program to at least four other countries. In the Philippines, USAID is conducting an indoor air pollution and household energy survey in Mindanao communities recently electrified through another USAID program. Data gathered by the survey will be used to assess the severity of the pollution problem and whether there is need for additional assistance. In addition, the survey tools and methods tested in Mindanao will be refined for application to other project locales.

In Kenya, USAID and the Shell Foundation are collaborating to address health impacts and fuel shortages faced by women living in the urban slums of Ngong and Rongai. Winrock is training women's groups in these areas in the construction and sale of efficient cookstoves and insulated fireless cookers. With USAID and Shell support, Winrock will provide technical, logistical and start-up capital costs to help these entrepreneurs establish more viable enterprises.

In addition to these activities, USAID will collaborate with the Shell Foundation to support the Social Marketing Initiative, which will be implemented by Winrock and local partners in Kenya. Under this initiative Winrock will develop and implement social marketing campaigns, promoting the adoption of cleaner cooking technologies and fuels and associated behavioral changes. These campaigns will involve media, educators, and other groups crucial to fostering acceptance of the new technologies.

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